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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,499	11/20/2003	Koji Mametsuka	245771US2S	6695
22850 7590 05/03/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SHERMAN, STEPHEN G	
			ART UNIT	PAPER NUMBER
			2629	
			NOTIFICATION DATE	DELIVERY MODE
			05/03/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/716,499

Applicant(s)

MAMETSUKA, KOJI

Examiner

Stephen G. Sherman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 April 2007 has been entered. Claims 1-5 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Although a new grounds of rejection is presented by the examiner, the examiner would like to comment on some of the arguments presented by the applicant.

On page 5 of the applicant's response, the applicant cites a portion of Ishizuka found at column 6, line 65 to column 7, line 16. The applicant then states that their claims state "each reset signal initializing the potential of the control terminal and correcting the potential of the control terminal to a level suited for the main wavelength of light to be emitted from a corresponding luminous element so as to achieve a

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luminous balance between the main wavelengths of light to be emitted” and do not teach or claim making variations in voltages across respective capacitive light emitting elements for emitting light of different colors equal.

The examiner would like to point out that Ishizuka is only used to teach “a reset signal supply section that supplies to the pixels different reset signals associated with the main wavelengths of light to be emitted from the luminous elements” and the fact that Ishizuka teaches of making variations in voltages across respective capacitive light emitting elements for emitting light of different colors equal is irrelevant, and Ishizuka is still teaching of achieving luminous balance between the main wavelengths of light.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 5 recite the limitation “the main wavelength(s) of light.” There is insufficient antecedent basis for this limitation in these claims.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 5, the claim recites the limitation: “a reset signal supply section that supplies to the pixels different reset signals associated with the main wavelengths of light to be emitted from the luminous elements, each reset signal initializing the potential of the control terminal and correcting the potential of the control terminal to a level suited for the main wavelength of light to be emitted from a corresponding luminous element so as to achieve a luminous balance between the main wavelengths of light to be emitted.”

This claim is indefinite because, first, it is unclear from the line “a reset signal supply section that supplies to the pixels different reset signals associated with the main wavelengths of light to be emitted from the luminous elements” whether the different reset signals are each associated with the main wavelengths of light or whether there are different reset signals, each of which is associated with a different main wavelength of light, and it is further confusing since there is no mention of “main wavelengths of light” earlier in the claim, yet this portion of the claim contains the limitation of “the main wavelengths of light”.

The second half of the limitation stating “each reset signal initializing the potential of the control terminal and correcting the potential of the control terminal to a level suited for the main wavelength of light to be emitted from a corresponding luminous element so as to achieve a luminous balance between the main wavelengths of light to be emitted” is indefinite because, with respect to the first part of the limitation, it is not clear whether each reset signal is associated with a specific “main wavelength of light” or whether each reset signal is associated with all of the “main wavelengths of light” and

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thus both situations would be able to correct the potential to a level suited for the main wavelength of light to be emitted from a corresponding luminous element.

Claims 2-4 are rejected as being dependent from claim 1.

For examination purposes, the examiner will assume in accordance with the specification that there is a separate reset signal for each main wavelength of light, and that each of these separate reset signals is able to correct the potential to a level suited for that specific main wavelength of light, however, the claim should be amended to clarify that this is indeed what the applicant means to claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto (US 6,829,023) in view of Miyazawa (US 2005/0116907) and further in view of Ishizuka et al. (US 6,707,438).

Regarding claim 1, Goto teaches a display device comprising:

an array section having a plurality of pixels arrayed in a matrix (Fig. 5),

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each pixel (Fig. 9 shows a second embodiment of the pixels in Fig. 5) including
a luminous element (Fig. 9, element 46),
a drive control element (Fig. 9, element 45) that causes a current to flow in said
luminous element according to a pixel video signal (see col. 7, lines 43-44),
a capacitor (Fig. 9, capacitor 48a), which is connected to a control terminal of
said drive control element (Fig. 9), and that temporarily stores the potential difference
between the threshold voltage of said drive control element and a reset signal (see col.
7, lines 44-49, where there is a reset circuit 48 described which indicates the presence
of a reset signal, and given the arrangement of capacitor 48a and element 45, the
capacitor must store the potential difference between a reset signal and the threshold
voltage of element 45), and
a pixel switch (Fig. 9, switch 44, see col. 7, line 43) connected via said capacitor
to the control terminal of the drive control element (Fig. 9).

Goto fails to teach wherein the reset signal initializes the potential of the control
terminal and corrects the potential of the control terminal to a level suited for the main
wavelength of light to be emitted from a corresponding luminous element so as to
achieve a luminous balance between the main wavelengths of light to be emitted.

Miyazawa discloses of a display device wherein the potential of a control terminal
of a drive control element is initialized and the potential of the control terminal is
corrected to a level suited for the main wavelength of light to be emitted from a
corresponding luminous element so as to achieve a luminous balance between the
main wavelengths of light to be emitted (Figures 8 and 10 and paragraphs [0155] ,

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[0159]-[0161] and [0123]-[0127] explain that the control terminal of transistor Trd is applied with a potential which is corrected as suited to the wavelength of light that is to be emitted from the pixel, which is done by having VddB, VddG and VddR. Paragraph [0072] explains that having a different voltage for each color allows for compensation for variations of a driving transistor optimally for each color.).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the separate color compensation method as taught by Miyazawa with the display device taught by Goto in order to have a different voltage for each color to allow for compensation for variations of a driving transistor optimally for each color.

Goto and Miyazawa fail to teach a reset signal supply section that supplies to the pixels different reset signals associated with the main wavelengths of light to be emitted from the luminous elements.

Ishizuka et al. disclose a reset signal supply section that supplies to the pixels different reset signals associated with the main wavelengths of light to be emitted from the luminous elements (see Figs. 8-9, and see col. 10, lines 27-41, where there is a reset signal supply section supplying a separate reset signal line for each color pixel, where each color pixel is a pixel for emitting a different wavelength of light.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ishizuka et al. in the device taught by the combination of Goto and Miyazawa to supply different reset signals according to the different color sub-pixels in a display device in order to further account

for the variations in the EL elements for the red, green, and blue colors (see Ishizuka, col. 5, lines 39-43).

Regarding claim 2, Goto, Miyazawa and Ishizuka et al. disclose the display device according to claim 1.

Ishizuka et al. also disclose a device wherein the reset signal supply section is configured to output an independently-variable potential as at least one of the reset signals (see col. 9, lines 1-4, and col. 10, lines 33-42, where the variable voltage sources 18 provide the offset voltage which is the voltage provided in response to the reset signal).

Regarding claim 3, Goto, Miyazawa and Ishizuka et al. disclose the display device according to claim 1.

Goto also discloses a device wherein said pixel includes a reset switch (Fig. 9, switch 44) that causes the reset signal to be supplied to said capacitor (see col. 7, lines 41-42, where switch 44 is providing the reset signal to the capacitor when the reset signal is supplied).

Regarding claim 4, Goto, Miyazawa and Ishizuka et al. disclose the display device according to claim 1.

Ishizuka et al. also disclose a device wherein individual wiring-lines (Fig. 8, wiring lines A1R, A1G, and A1B) are disposed to supply the reset signals to the pixels for the

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respective main wavelengths (Fig. 8, where lines A1R, A1G, and A1B are the lines providing the offset voltages, or reset signal voltages as discussed above, 181R, 181G, and 181B to the pixels for the respective colors, or wavelengths).

Regarding claim 5, please refer to the rejection of claim 1, and furthermore,

Goto also discloses

applying a potential equal to the threshold voltage of said drive control element to one of electrodes of said capacitor (Fig. 9, where given the arrangement shown one of the electrodes of the capacitor 48a must hold the threshold voltage of element 45 at one of its electrodes when switch 48b is closed); and

supplying a pixel video signal to the other electrode of said capacitor via said pixel switch in a state where said capacitor stores the potential difference between a reset signal and the threshold voltage (see col. 7, lines 44-49, where there is a reset circuit 48 described which indicates the presence of a reset signal, and given the arrangement of capacitor 48a and element 45, the capacitor must store the potential difference between a reset signal and the threshold voltage of element 45, and then there is also a video signal described that must be supplied following the application of a reset signal).

Conclusion

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

20 April 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

